



1

SEQUENCE LISTING

<110> QIN, NING
Codd, Ellen E.
Flores, Christopher
Zhang, Sui-po

<120> HUMAN CYCLOOXYGENASE-3 ENZYME AND USES THEREOF

<130> PRD 2041

<140> 10/783,297

<141> 2004-02-20

<150> 60/449,230

<151> 2003-02-21

<160> 27

<170> PatentIn Ver. 3.3

<210> 1

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
primer

<400> 1

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24

<210> 2

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
primer

<400> 2

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<210> 3

<211> 93

<212> DNA

<213> Homo sapiens

<400> 3

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<210> 4
 <211> 31
 <212> PRT
 <213> Homo sapiens

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 20 25 30

<210> 5
 <211> 93
 <212> DNA
 <213> Homo sapiens

<400> 5
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 <211> 31
 <212> PRT
 <213> Homo sapiens

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 Ala Leu Asn Ala Arg Leu Ser Pro Ser Ser Leu Ser Ser Ala Gly
 20 25 30

<210> 7
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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
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<210> 8
 <211> 1893
 <212> DNA
 <213> Homo sapiens

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 ttgctgttcc tgctcctgct cccgccgctc cccgtcctgc tcgcggaccc aggggcgcc 180

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acgccagtga atccctgttg ttactatcca tgccagcacc agggcatctg tgtccgcttc 240
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<210> 9

<211> 630

<212> PRT

<213> Homo sapiens

<400> 9

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Ser Trp Trp Ser Leu Glu Cys Gln Leu Ser Pro Ser Ser Leu Ser Ser
20 25 30

Ala Gly Ser Leu Leu Leu Trp Phe Leu Leu Phe Leu Leu Leu Leu Pro
35 40 45

Pro Leu Pro Val Leu Leu Ala Asp Pro Gly Ala Pro Thr Pro Val Asn
50 55 60

Pro Cys Cys Tyr Tyr Pro Cys Gln His Gln Gly Ile Cys Val Arg Phe
65 70 75 80

Gly Leu Asp Arg Tyr Gln Cys Asp Cys Thr Arg Thr Gly Tyr Ser Gly
85 90 95

Pro Asn Cys Thr Ile Pro Gly Leu Trp Thr Trp Leu Arg Asn Ser Leu
100 105 110

Arg Pro Ser Pro Ser Phe Thr His Phe Leu Leu Thr His Gly Arg Trp
 115 120 125
 Phe Trp Glu Phe Val Asn Ala Thr Phe Ile Arg Glu Met Leu Met Arg
 130 135 140
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 145 150 155 160
 Asn Ser Ala His Asp Tyr Ile Ser Trp Glu Ser Phe Ser Asn Val Ser
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 Tyr Tyr Thr Arg Ile Leu Pro Ser Val Pro Lys Asp Cys Pro Thr Pro
 180 185 190
 Met Gly Thr Lys Gly Lys Lys Gln Leu Pro Asp Ala Gln Leu Leu Ala
 195 200 205
 Arg Arg Phe Leu Leu Arg Arg Lys Phe Ile Pro Asp Pro Gln Gly Thr
 210 215 220
 Asn Leu Met Phe Ala Phe Phe Ala Gln His Phe Thr His Gln Phe Phe
 225 230 235 240
 Lys Thr Ser Gly Lys Met Gly Pro Gly Phe Thr Lys Ala Leu Gly His
 245 250 255
 Gly Val Asp Leu Gly His Ile Tyr Gly Asp Asn Leu Glu Arg Gln Tyr
 260 265 270
 Gln Leu Arg Leu Phe Lys Asp Gly Lys Leu Lys Tyr Gln Val Leu Asp
 275 280 285
 Gly Glu Met Tyr Pro Pro Ser Val Glu Glu Ala Pro Val Leu Met His
 290 295 300
 Tyr Pro Arg Gly Ile Pro Pro Gln Ser Gln Met Ala Val Gly Gln Glu
 305 310 315 320
 Val Phe Gly Leu Leu Pro Gly Leu Met Leu Tyr Ala Thr Leu Trp Leu
 325 330 335
 Arg Glu His Asn Arg Val Cys Asp Leu Leu Lys Ala Glu His Pro Thr
 340 345 350
 Trp Gly Asp Glu Gln Leu Phe Gln Thr Thr Arg Leu Ile Leu Ile Gly
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 Glu Thr Ile Lys Ile Val Ile Glu Glu Tyr Val Gln Gln Leu Ser Gly
 370 375 380
 Tyr Phe Leu Gln Leu Lys Phe Asp Pro Glu Leu Leu Phe Gly Val Gln
 385 390 395 400
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Trp His Pro Leu Met Pro Asp Ser Phe Lys Val Gly Ser Gln Glu Tyr
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 Ser Tyr Glu Gln Phe Leu Phe Asn Thr Ser Met Leu Val Asp Tyr Gly
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 Val Glu Ala Leu Val Asp Ala Phe Ser Arg Gln Ile Ala Gly Arg Ile
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 Gly Gly Gly Arg Asn Met Asp His His Ile Leu His Val Ala Val Asp
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 Val Ile Arg Glu Ser Arg Glu Met Arg Leu Gln Pro Phe Asn Glu Tyr
 485 490 495
 Arg Lys Arg Phe Gly Met Lys Pro Tyr Thr Ser Phe Gln Glu Leu Val
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 Gly Glu Lys Glu Met Ala Ala Glu Leu Glu Glu Leu Tyr Gly Asp Ile
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 Asp Ala Leu Glu Phe Tyr Pro Gly Leu Leu Leu Glu Lys Cys His Pro
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 Asn Ser Ile Phe Gly Glu Ser Met Ile Glu Ile Gly Ala Pro Phe Ser
 545 550 555 560
 Leu Lys Gly Leu Leu Gly Asn Pro Ile Cys Ser Pro Glu Tyr Trp Lys
 565 570 575
 Pro Ser Thr Phe Gly Gly Glu Val Gly Phe Asn Ile Val Lys Thr Ala
 580 585 590
 Thr Leu Lys Lys Leu Val Cys Leu Asn Thr Lys Thr Cys Pro Tyr Val
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 Arg Pro Ser Thr Glu Leu
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<210> 10

<211> 1860

<212> DNA

<213> Homo sapiens

<400> 10

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<210> 11

<211> 630

<212> PRT

<213> Homo sapiens

<400> 11

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      20             25             30

Ala Gly Ser Leu Leu Leu Trp Phe Leu Leu Phe Leu Leu Leu Leu Pro
 35             40             45

Pro Leu Pro Val Leu Leu Ala Asp Pro Gly Ala Pro Thr Pro Val Asn
 50             55             60

Pro Cys Cys Tyr Tyr Pro Cys Gln His Gln Gly Ile Cys Val Arg Phe
 65             70             75             80

Gly Leu Asp Arg Tyr Gln Cys Asp Cys Thr Arg Thr Gly Tyr Ser Gly
      85             90             95

Pro Asn Cys Thr Ile Pro Gly Leu Trp Thr Trp Leu Arg Asn Ser Leu
 100            105            110

Arg Pro Ser Pro Ser Phe Thr His Phe Leu Leu Thr His Gly Arg Trp
 115            120            125

Phe Trp Glu Phe Val Asn Ala Thr Phe Ile Arg Glu Met Leu Met Arg
 130            135            140

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Leu Val Leu Thr Val Arg Ser Asn Leu Ile Pro Ser Pro Pro Thr Tyr
 145 150 155 160
 Asn Ser Ala His Asp Tyr Ile Ser Trp Glu Ser Phe Ser Asn Val Ser
 165 170 175
 Tyr Tyr Thr Arg Ile Leu Pro Ser Val Pro Lys Asp Cys Pro Thr Pro
 180 185 190
 Met Gly Thr Lys Gly Lys Lys Gln Leu Pro Asp Ala Gln Leu Leu Ala
 195 200 205
 Arg Arg Phe Leu Leu Arg Arg Lys Phe Ile Pro Asp Pro Gln Gly Thr
 210 215 220
 Asn Leu Met Phe Ala Phe Phe Ala Gln His Phe Thr His Gln Phe Phe
 225 230 235 240
 Lys Thr Ser Gly Lys Met Gly Pro Gly Phe Thr Lys Ala Leu Gly His
 245 250 255
 Gly Val Asp Leu Gly His Ile Tyr Gly Asp Asn Leu Glu Arg Gln Tyr
 260 265 270
 Gln Leu Arg Leu Phe Lys Asp Gly Lys Leu Lys Tyr Gln Val Leu Asp
 275 280 285
 Gly Glu Met Tyr Pro Pro Ser Val Glu Glu Ala Pro Val Leu Met His
 290 295 300
 Tyr Pro Arg Gly Ile Pro Pro Gln Ser Gln Met Ala Val Gly Gln Glu
 305 310 315 320
 Val Phe Gly Leu Leu Pro Gly Leu Met Leu Tyr Ala Thr Leu Trp Leu
 325 330 335
 Arg Glu His Asn Arg Val Cys Asp Leu Leu Lys Ala Glu His Pro Thr
 340 345 350
 Trp Gly Asp Glu Gln Leu Phe Gln Thr Thr Arg Leu Ile Leu Ile Gly
 355 360 365
 Glu Thr Ile Lys Ile Val Ile Glu Glu Tyr Val Gln Gln Leu Ser Gly
 370 375 380
 Tyr Phe Leu Gln Leu Lys Phe Asp Pro Glu Leu Leu Phe Gly Val Gln
 385 390 395 400
 Phe Gln Tyr Arg Asn Arg Ile Ala Met Glu Phe Asn His Leu Tyr His
 405 410 415
 Trp His Pro Leu Met Pro Asp Ser Phe Lys Val Gly Ser Gln Glu Tyr
 420 425 430
 Ser Tyr Glu Gln Phe Leu Phe Asn Thr Ser Met Leu Val Asp Tyr Gly
 435 440 445

Val Glu Ala Leu Val Asp Ala Phe Ser Arg Gln Ile Ala Gly Arg Ile
 450 455 460
 Gly Gly Gly Arg Asn Met Asp His His Ile Leu His Val Ala Val Asp
 465 470 475 480
 Val Ile Arg Glu Ser Arg Glu Met Arg Leu Gln Pro Phe Asn Glu Tyr
 485 490 495
 Arg Lys Arg Phe Gly Met Lys Pro Tyr Thr Ser Phe Gln Glu Leu Val
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 Gly Glu Lys Glu Met Ala Ala Glu Leu Glu Glu Leu Tyr Gly Asp Ile
 515 520 525
 Asp Ala Leu Glu Phe Tyr Pro Gly Leu Leu Leu Glu Lys Cys His Pro
 530 535 540
 Asn Ser Ile Phe Gly Glu Ser Met Ile Glu Ile Gly Ala Pro Phe Ser
 545 550 555 560
 Leu Lys Gly Leu Leu Gly Asn Pro Ile Cys Ser Pro Glu Tyr Trp Lys
 565 570 575
 Pro Ser Thr Phe Gly Gly Glu Val Gly Phe Asn Ile Val Lys Thr Ala
 580 585 590
 Thr Leu Lys Lys Leu Val Cys Leu Asn Thr Lys Thr Cys Pro Tyr Val
 595 600 605
 Ser Phe Arg Val Pro Asp Ala Ser Gln Asp Asp Gly Pro Ala Val Glu
 610 615 620
 Arg Pro Ser Thr Glu Leu
 625 630

<210> 12
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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 primer

<400> 12
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30

<210> 13
 <211> 33
 <212> DNA
 <213> Artificial Sequence

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 <223> Description of Artificial Sequence: Synthetic
 primer

<400> 13
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<210> 14
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
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<400> 14
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<210> 15
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<212> PRT
<213> Artificial Sequence

<220>
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oligopeptide

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<210> 16
<211> 86
<212> DNA
<213> Homo sapiens

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cgcgaccca ggggcgcca cgccag 86

<210> 17
<211> 94
<212> DNA
<213> Homo sapiens

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ccaggctcag cccctcatct ctctcctctg cagg 94

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<212> DNA
<213> Homo sapiens

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<221> CDS

<222> (1)..(189)

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Ser Trp Trp Ser Leu Glu Cys Gln Ala Gln Pro Leu Ile Ser Leu Leu	
20 25 30	
tgc agg gag tct ctt gct ctg gtt ctt gct gtt cct gct cct gct ccc	144
Cys Arg Glu Ser Leu Ala Leu Val Leu Ala Val Pro Ala Pro Ala Pro	
35 40 45	
gcc gct ccc cgt cct gct cgc gga ccc agg ggc gcc cac gcc agg tag	192
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50 55 60	

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<211> 63

<212> PRT

<213> Homo sapiens

<400> 19

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20 25 30	
Cys Arg Glu Ser Leu Ala Leu Val Leu Ala Val Pro Ala Pro Ala Pro	
35 40 45	
Ala Ala Pro Arg Pro Ala Arg Gly Pro Arg Gly Ala His Ala Arg	
50 55 60	

<210> 20

<211> 62

<212> PRT

<213> Homo sapiens

<400> 20

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20 25 30	
Gly Ser Leu Leu Leu Trp Phe Leu Leu Phe Leu Leu Leu Leu Pro Pro	
35 40 45	

Leu Pro Val Leu Leu Ala Asp Pro Gly Ala Pro Thr Pro Gly
 50 55 60

<210> 21
 <211> 17
 <212> PRT
 <213> Homo sapiens

<400> 21
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 1 5 10 15

Pro

<210> 22
 <211> 42
 <212> PRT
 <213> Homo sapiens

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Ser Gly Ser Cys Cys Ser Cys Ser Cys Ser Arg Arg Ser Pro Ser Cys
 20 25 30

Ser Arg Thr Gln Gly Arg Pro Arg Gln Val
 35 40

<210> 23
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 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (1)..(189)

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 Ser Trp Trp Ser Leu Glu Cys Gln Leu Ser Pro Ser Ser Leu Ser Ser
 20 25 30
 gca ggg agt ctc ttg ctc tgg ttc ttg ctg ttc ctg ctc ctg ctc ccg 144
 Ala Gly Ser Leu Leu Leu Trp Phe Leu Leu Phe Leu Leu Leu Pro
 35 40 45
 ccg ctc ccc gtc ctg ctc gcg gac cca ggg gcg ccc acg cca ggt 189
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 50 55 60

<210> 24
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 <212> PRT
 <213> Homo sapiens

<400> 24
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 1 5 10 15
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 20 25 30
 Ala Gly Ser Leu Leu Leu Trp Phe Leu Leu Phe Leu Leu Leu Leu Pro
 35 40 45
 Pro Leu Pro Val Leu Leu Ala Asp Pro Gly Ala Pro Thr Pro Gly
 50 55 60

<210> 25
 <211> 180
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (1)..(180)

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 Ser Gly Gly Ala Leu Asn Ala Arg Leu Ser Pro Ser Ser Leu Ser Ser
 20 25 30
 gca ggg agt ctc ttg ctc tgg ttc ttg ctg ttc ctg ctc ctg ctc ccg 144
 Ala Gly Ser Leu Leu Leu Trp Phe Leu Leu Phe Leu Leu Leu Leu Pro
 35 40 45
 ccg ctc ccc gtc ctg ctc gcg gac cca ggg gcg ccc 180
 Pro Leu Pro Val Leu Leu Ala Asp Pro Gly Ala Pro
 50 55 60

<210> 26
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 <212> PRT
 <213> Homo sapiens

<400> 26
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 1 5 10 15

Ser Gly Gly Ala Leu Asn Ala Arg Leu Ser Pro Ser Ser Leu Ser Ser
 20 25 30

Ala Gly Ser Leu Leu Leu Trp Phe Leu Leu Phe Leu Leu Leu Leu Pro
 35 40 45

Pro Leu Pro Val Leu Leu Ala Asp Pro Gly Ala Pro
 50 55 60

<210> 27

<211> 32

<212> PRT

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Canine sequence

<400> 27

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Pro Arg Met Pro Gly Pro Ala Leu Thr Ser Arg Ser Ala Gly Gly Ser
 20 25 30